The Effects Of Intellectual Capital And Job Satisfaction On Employee Work Productivity At PT. Bank Mandiri Taspen Gorontalo Sub-Branch Office

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ABSTRACT
This study aims to determine how much influence intellectual capital (X1) and job satisfaction (X2) have on work productivity (Y) at Bank Mandiri Taspen Supporting Branch Offices (KCP) Gorontalo. The sampling technique used in this study was simple random sampling, while the main data collection was through a list of statements that were tested through validity and reliability tests. The technique used for analysis is path analysis. The results of hypothesis testing show that simultaneously, intellectual capital (X1) and work satisfaction (X2) have an effect on employee work productivity at the Bank Mandiri Taspen Gorontalo Sub-Branch Office, which is equal to 0.741 or 74.1%. The results of partial hypothesis testing of intellectual capital (X1) have an effect on employee work productivity (Y) PT. Bank Mandiri Taspen Gorontalo Sub-Branch Office, which is equal to 0.376, while job satisfaction (X2) partially affects employee work productivity (Y), which is equal to 0.332.

Keywords: Intellectual Capital, Job Satisfaction and Work Productivity

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I. INTRODUCTION

The amount of personnel productivity in a company or organization is one of the elements that influences its level of success. The quality and amount of work produced by employees during their work in accordance with the obligations assigned to them determine the work productivity of an employee. In the long term, intellectual capital will have an impact on organizational performance, according to Helmiatin (2015: 52), because it can be used by organizations with the aim of producing the desired performance as well as a tool for evaluating productivity capabilities to produce workers who will be able to meet all organizational needs in the future.

Productivity is a good way to measure the quality of employees. Gaol (2014: 273) suggests the notion of employee work productivity is a real habit shown by each individual as a good work achievement produced by employees in accordance with their functions in an institution or company. Every company always demands a high level of work productivity from its employees because workers are the most valuable resource for the company. In addition, organizations can increase productivity by having highly productive workers in their jobs.

Human resources are one of the resources that must have knowledge and ability because they are a valuable component of a company's intellectual capital, which determines success. The term "intellectual capital" means more than the intelligence possessed by a company. Intellectual capital is an ideological process to achieve the goals of a company (Bontis in Ivan Giovanni Hermanus and Evelyn, 2013: 29). Intellectual capital is the process of creating value through information and knowledge used in work, according to Williams (Damar Asih Dwi Rachmawati, 2012: 36). In general, intellectual capital is different from assets because it has an intangible nature (Marr and Schiuma, in Cecilya Gunawan and Yuliatun Tan, 2013: 3).

When an employee is happy with the job they are doing, they will be able to work more effectively, and their performance will improve. One of the most significant and extensively studied topics in the organizational sector is the nature of work goals. This happens because employee performance is influenced by job satisfaction. Employee satisfaction has a positive effect on the productivity and efficiency of the company. On the other hand, dissatisfied employees may have negative effects, such as high absenteeism.

A worker will no doubt make every effort to complete all their tasks if they feel successful or satisfied with their job. In order for this to happen, once employees receive it, employee productivity and work results will grow optimally, leading to excellent business performance (Asepta & Maruno, 2017). When employees are satisfied with their jobs, the company gains tangible benefits in the future. If work is completed more quickly, damage or
negligence in work can be minimized, absenteeism can be reduced, movement can be reduced, unit costs can be limited, and work productivity can increase (Hasibuan, 2010).

According to Dwi Fitria Azzahra (2016), "intellectual capital" is generally associated with the expertise and skills of employees in the organization. According to Divianto (2010), intellectual capital in an organization has the potential to be a tool to build the potential of market orientation for its customers. If someone's competence in an organization gradually improves, it will be easy to understand customer needs and develop customer capital to maintain customer loyalty. Human capital is a source of corporate renewal and innovation. The most valuable source of information, capabilities, and skills for a company or organization is its human capital. If a business can leverage employee skills, human capital will improve.

Research on employee work productivity was conducted by Prasetya et al. (2016) and Helmiatin (2015). Prasetya et al. (2016) suggest that human capital, information capital, and organizational capital have a significant influence on employee productivity.

According to Wexly and Yuki in Shobarudin (2005:16), "job satisfaction" refers to how employees feel about their work. Job influence affects a number of aspects of the job, such as pay or salary, work environment, supervision, co-workers, work equipment, job security, and opportunities for advancement.

According to Handoko (2011), "job satisfaction" refers to the emotional state in which a worker views his work, whether it is positive or negative. "Work" describes a person's feelings about his job. This can be seen in the positive attitude of employees towards work and everything that is encountered in the work environment. Job satisfaction must continue to be driven by management as it impacts performance, absenteeism, workforce turnover, morale, complaints, and other important human resource issues.

Many issues have been raised by experts and suspected as a potential determinant of job happiness. According to Azeem (2010: 295-299), there are five factors that influence job happiness, including the following: 1) work; 2) salary; 3) supervision; 4) prospects for progress; and 5) relationships with colleagues. Agreeing with the viewpoint mentioned above, Munandar (2004:95) states that job intrinsics, salary, supervision, co-workers, and the work environment all contribute to overall job satisfaction. In addition to this view, Mangkunegara (2004: 117) describes the factors that determine job satisfaction as feelings that have a relationship with work, such as salary or wages received, opportunities for career development,
employee relations with others, types of work, placement work, organizational structure, and quality of work, while the specific aspects are age, condition of ability, education, and health.

Intellectual capital to overcome these problems, the fact that businesses must continue to grow in order to adapt to existing conditions, and other factors are suspected of contributing to work productivity, which has not yet reached its peak. All core management functions must go through a process of developing their intellectual capacity, which is useful for building the intellectuality of employees, so that the productivity of all business units can be measured by the existence of equivalent achievements based on the intellectual capital owned by employees. In fact, not all employees meet the expected intellectual criteria, contrary to what is expected. One of the managers there stated that the situation on the ground indicated lower achievement of targets compared to other organizations or the need to increase employee productivity, where the work productivity of its employees becomes less effective due to their inability to manage and implement it while increasing their intellect. Work productivity that is not optimal is thought to be caused by the lack of work satisfaction that is often experienced by employees, which is one of the elements that cause work productivity that is not optimal. Based on the background description above, the authors are interested in conducting further research, which is formulated in the research title, "The Effects of Intellectual Capital and Job Satisfaction on Employee Work Productivity at PT. Bank Mandiri Taspen Gorontalo Sub-Branch Office."

**Problem Statement**

1. How much influence do intellectual capital (X1) and job satisfaction (X2) simultaneously have on the work productivity of employees at the PT. Mandiri Taspen Gorontalo Sub-Branch Office?
2. How big is the influence of intellectual capital (X1) partially on the work productivity of employees at the PT. Mandiri Taspen Gorontalo Sub-Branch Office?
3. How big is the effect of job satisfaction (X2) partially on the work productivity of employees at the PT. Mandiri Taspen Gorontalo Sub-Branch Office?

**Research Purposes**

1. To determine the influence of intellectual capital (X1) and job satisfaction (X2) simultaneously on employee work productivity at the PT. Mandiri Taspen Gorontalo Sub-Branch Office.
2. To determine the influence of intellectual capital (X1) partially on employee work productivity at PT. Mandiri Taspen Gorontalo Sub-Branch Office.
3. To determine the magnitude of the effect of job satisfaction (X2) on employee work productivity at the PT. Mandiri Taspen Gorontalo Sub-Branch Office.
II. LITERATURE REVIEW

Intellectual Capital

According to Stewart in (Priansa & Cahyani, 2015), that intellectual capital is all things that are known and contributed by everyone in the organization, which provides a competitive advantage. Intellectual capital is a non-tangible asset, unlike land, buildings, equipment, and cash, which business owners and accountants usually understand. Since this is intellectual property it is usually referred to as virtual capital. Intellectual Capital (intellectual capital) is a term used to describe assets in the form of knowledge, information, and intellectual property that are available to businesses and generate high-value assets and future financial benefits for businesses (Priansa & Cahyani, 2015).

Intellectual capital is a combination of competence, commitment, and work control (Firmaudin, 2021). According to Stewart in Suhendah (2012), "intellectual capital" is a resource of knowledge, intellectual material, and company information used to obtain high-value assets and economic benefits for the company. Another way to describe it is as a collective brain and a package of practical knowledge (Hariyanto, Wiwit, and Hermawan, Sigit 2015: 3).

Components of Intellectual Capital

Researchers generally have divided intellectual capital into several components, including human capital, structural capital, and relational capital. Fernando Pardede in Dwi Fitria Azzahra (2016) explains these components as follows:

1) Human Capital

Human capital shows the company's capacity to come up with the best solutions based on the knowledge that the employees already have. If companies can take advantage of the knowledge that each employee has, human capital will increase. Human Capital or Human Capital is the most important element of Intellectual Capital, Human Capital consists of individual knowledge within the organization which of course exists in its employees. Knowledge comes from human capital indicators such as: education, skills, and personality.

2) Structural Capital

This factor refers to the capacity of an organization or business to comply with standard business procedures and structures that enable staff members to perform at their highest level both intellectually and commercially. as a whole, for example, including all of the company's
intellectual property as well as its operational systems, manufacturing processes, organizational culture, and management philosophy. Structural Capital is another organizational capability to increase employee productivity. It consists of organizational capabilities that include markets, hardware, software, databases, organizational structure, patents, trademark Structural capital indicators consist of corporate procedure, corporate culture, and the information technology system.

3) Relational Capital

Intellectual capital includes relationship capital, which adds genuine value. The positive relationships that a business has with its partners, including high-quality, trustworthy suppliers, as well as with local communities and governments, are known as relational capital. Relationship capital can come from a variety of sources outside the corporate environment and add business value. Relational capital is defined by Fernando Pardede in Sarrah Arifah and Henny Medyawati (2011) as "harmonious relationships between companies and partners, originating from reliable and quality suppliers, originating from satisfied and loyal customers because of the satisfactory service from the company, and coming from the relationship between the company, the government, and the surrounding community." Relational Capital. Relational capital indicators consist of corporate reputation, distribution channels, and social networks.

**Intellectual Capital Measurement**

The Value Added Intellectual Coefficient, or VAIC, is designed to provide information regarding the value creation efficiency of a company's intangible or tangible assets. VAIC is an instrument used to assess the utilization of intellectual capital by organizations. The interaction between the three main components, such as human capital, capital employed, and structural capital, is also used to measure how effectively intellectual capital and capital are used to create value.

**Job satisfaction**

Mangkunegara (2011: 117) defines job satisfaction as the support or lack of experience of employees in relation to their work at work or in other circumstances. Meanwhile, job satisfaction is a measure of an employee's feelings of satisfaction or dissatisfaction with the results of his work, according to Rivai (2014: 856).

According to Handoko (Edy Sutrisno, 2014: 75), the emotional condition of an employee can affect how satisfied they are with their work. Job satisfaction reflects a person's feelings towards his work. Job satisfaction, according to Spector (Wenn, 2018), is an individual's feelings towards his work as well as a number of interrelated correlations between
individual behavior and job features. Based on the description of job satisfaction disclosed, it can be concluded that employees who are satisfied with their work have their own motivation to perform the next task more skillfully at a later time. As a result, their work patterns are more regular and even tend to improve.

Impact of Job Satisfaction and Job Dissatisfaction

Job satisfaction is very important because it is a personal experience that influences how individuals feel about their jobs. This impact goes beyond the individual to include colleagues, groups, teams, supervisors, and the business as a whole. Here are some examples of the influence of job satisfaction, including:

1) Impact on Performance

Two models of satisfaction, namely that satisfaction can result in greater performance or that performance can determine job satisfaction, can be used to explain the relationship between work and performance. In the first model, the loved individual will perform better for showing it. On the other hand, in the second model, people who perform very well will benefit from the organization and its imbalances, which contribute to increased job satisfaction.

2) Impact on physical health and psychological well-being

According to the findings of longitudinal studies, measuring job satisfaction is a reliable indicator of age (Munandar, 2008). Physical and mental functioning is supported by job satisfaction. Regarding contentment, it is a sign of well-being. Physical and mental functions will increase if the level of job satisfaction increases, and they will worsen if the level of job satisfaction decreases.

3) Impact on employee job satisfaction

A person's general attitude towards himself, which reflects emotional well-being, is referred to as "life satisfaction." If a person is satisfied with his job, he is likely also satisfied with his life as a whole.

4) Impact on Absenteeism and Turnover

Employees' refusal to attend work is influenced by job satisfaction. If employees don't like the work being done, they will try to avoid or even not attend work. Job satisfaction has a relationship with employees' intention to stop working. Job satisfaction that is classified as low has a high potential to make someone decide to stop working. Absence or termination of work in a company is related to motivation to avoid undesirable or unsatisfactory work.
Job Satisfaction Indicator

The indicators that determine job satisfaction, according to Robbins and Judge (Nursyiah S., 2019), are namely:

1) Challenging work

Companies must be able to measure the extent to which employees are given interesting tasks to complete, learning opportunities, and opportunities to take responsibility. Examples include highly challenging jobs where employees are given the freedom to complete tasks in their own unique way and where employees are given the opportunity to take responsibility for problems that arise in the workplace. Due to the hurdles that the organization presents, employees are motivated to complete tasks.

2) Salary or wages

Employees receive gifts in the form of salary or income in return for their efforts and ideas in helping the organization achieve its goals. The definition of salary includes compensation in the form of money as well as compensation obtained in accordance with a person's level of education and is equivalent to wages paid to other people who do similar work.

3) Promotion

Promotions can provide opportunities for career advancement within a company. Each employee may be offered opportunities for further education, opportunities to receive business awards, and opportunities to occupy positions of greater responsibility.

4) Supervisor support

Superiors' ability to provide technical assistance and behavioral support, such as superiors providing constructive criticism for employees in all situations and superiors providing attention in the form of advice to employees on the job, or, alternatively, satisfaction with approval is the ability to agree to provide technical guidance and protection for work that is a threat to his subordinates, according to Robbins (2015).

5) Concern for coworkers

A coworker is someone who is easy to work with and is always willing to assist when needed. Most workers are also satisfied because of their desire for social interaction. Therefore, having coworkers is not surprising. An approachable and encouraging attitude will increase job satisfaction.

Aspects of Job Satisfaction

Robbins (in Asepta & Maruno, 2017) also looked at the following things to learn more about job satisfaction.
1) Salary Satisfaction

Salary is the amount of pay that employees get from their company, which is thought to be fair for the amount of work they do.

2) Job Satisfaction

Work at a company is seen as a chance for employees to learn how to be responsible and face new challenges in the form of assignments. This helps employees grow and see how their work helps others.

3) Satisfaction with Superiors' Attitude

The care, practical help, and moral support that managers give to their staff, along with knowing what their subordinates want and getting along well with their bosses, will help make employees happier.

4) Satisfaction with coworkers

When coworkers help each other out both socially and technically, this can make the job more satisfying.

5) Satisfaction with promotions

Getting a promotion means wanting a higher position than you had before. This is directly linked to an increase in income, social status, psychological growth, and a sense of fairness.

Work Productivity

Productivity is the process by which human resources can produce productive output. A process of placing pressure on output produced by human resources with a ratio between input and output can also be called "productivity." (Ramadon, Syahri, & Yanti Pasmawati, 2017) Productivity assesses how well companies use or utilize the resources they have to generate income. Activity ratios can be used to measure productivity. The activity ratio shows how effectively a business uses internal financial resources to generate income (Suhendah, 2012).

Productivity is defined as the ratio of input to output. Productivity can be increased by increasing efficiency (in terms of time, materials, and labor). The ability of employees to produce work is related to getting energy, so it is referred to as "productivity." When a worker is able to create the desired good or service in a reasonable time, it is considered productive. Therefore, if the invested energy produces a higher output, it can be considered productive.
Factors that Affect Productivity

1) Working conditions

Jobs that require numerous and exhausting activities can result in low work productivity. For this reason, it is first necessary to conduct a time and motion study so that movement at work can be done quickly and precisely. With time and motion study, effective movements can be created in order to expedite work and minimize worker errors.

2) Worker conditions

A key factor in achieving high productivity is the self-confidence of the workers and their passion for work. Therefore, leaders must pay attention to important elements through:

a. Enough income
b. Prioritizing the needs of workers
c. Based on the abilities of workers, the right target placement is carried out at the appropriate level.

Work Productivity Indicators

Siagian (Muh. Rory Prayogi Syam, 2020) states that indicators of work productivity are:

1) Employee work capacity, or employees' ability, is expected to complete work assignments in accordance with work results that meet standards or do not apply to the company, which is what the company expects in terms of the quality of employee work.

2) The number of goods made is a good way to measure how much work employees do to meet company standards.

3) An employee's hours show how well they know how to do their job and how aware they are of their responsibilities.

Framework

Labor productivity is valued because it is something that people experience; whether they are happy or unhappy with their job, it still has an effect on their co-workers, group, team, boss, and the organization as a whole. Since it is something that is actually done by individuals, labor productivity is valued. Whether an employee is happy or unhappy with their job still influences their co-workers, their group, their team, their boss, and the company as a whole.

Based on the theory of the relationship between intellectual capital and employee productivity, it can be explained that intellectual capital really has a role in the company's operations, so if it is utilized optimally, the company will be able to participate in increasing the performance of its employees. Based on this, the framework for thinking about the relationship between research variables is clearly described in the following framework, which
shows intellectual capital, consisting of human capital, structural capital, and relational capital, as independent variables affecting employee work productivity as the dependent variable.

As a guide for directing the process of testing the hypothesis later, it is necessary to create a framework for thinking about the variables studied. Below is presented the flow of the framework, namely:

1. Intellectual capital (X1) and job satisfaction (X2) have a significant effect on employee work productivity at the PT. Bank Mandiri Taspen Gorontalo Sub-Branch Office.
2. Intellectual capital (X1) partially has a significant effect on employee work productivity at the PT. Bank Mandiri Taspen Gorontalo Sub-Branch Office.
3. Job satisfaction (X2) partially has a significant effect on employee work productivity at the PT. Bank Mandiri Taspen Gorontalo Sub-Branch Office.

III. RESEARCH METHODS

This study uses a quantitative research method. According to Sugiyono (2016; 68), the quantitative method is a research method with a philosophical foundation in positivism. This method is used to examine populations and related samples in the form of numbers and use statistics. The approach taken in this research is survey research in order to explain the causal relationship and test the hypothesis.
Operationalization of Research Variables

1) Independent variables are Intellectual Capital (X1) and Job Satisfaction (X2).
2) Dependent variable is Employee Productivity (Y).

<table>
<thead>
<tr>
<th>Variable</th>
<th>Dimension</th>
<th>Indicator</th>
<th>Scale</th>
</tr>
</thead>
</table>
| **Intellectual Capital (X1)** | Human capital      | • Personality  
• Skill  
• Education  | Ordinal   |
|                             | Structural capital | • information- technology system,  
• corporate procedure,  
• corporate culture  | Ordinal   |
|                             | Relational capital | • Stakeholders relation,  
• corporate reputation,  
• social networks  | Ordinal   |
| **Job Satisfaction (X2)**   | Challenging work   | • Mentally challenging work  
• Positions that match your skills or abilities  | Ordinal   |
|                             | Salary or wages    | • Adequate salary or wages  
• Timely payment of salary or wages  | Ordinal   |
|                             | Promotion          | • Provide opportunities for promotion  
• Promotional policies that are considered fair  | Ordinal   |
|                             | Supervisor support | • Guidance and direction at work  
• Policies that have standards for supervision  | Ordinal   |
|                             | Concern for coworkers | • Coordination between work units  
• Work support between work units  | Ordinal   |

Source X1 : (Dwi Fitria Azzahra, 2016)
X2 : Robbins dan Judge (Nursyianah S, 2019)
Table 2. Operationalization of Research Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Indicator</th>
<th>Dimension</th>
<th>Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employee Productivity (Y)</td>
<td>Quality</td>
<td>• Ability to complete work on target</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Quantity</td>
<td>• Generated amount</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Understanding and carrying out the task</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Working</td>
<td>• Presence</td>
<td>Ordinal</td>
</tr>
<tr>
<td></td>
<td>time</td>
<td>• Speed in completing tasks</td>
<td></td>
</tr>
</tbody>
</table>

Source Y : Siagian (Muh. Rory Prayogi Syam, 2020 : 54)

Population and Sample

Population

Collecting research data is the most important stage to find out the characteristics of the population included in the elements of the research object and will be used in decision-making in hypothesis testing. Objects to be examined in research include humans, objects, and activities, as well as an event. According to Riduwan (2015; 54), populations are objects or subjects in the research area that certainly meet the requirements or categories that also have a connection with problems in research. Sugiyono (2016; 61) explains that "population" is a generalization area for objects and subjects with characteristics and qualities according to the wishes of researchers to study, which can then provide conclusions. Sudjana (2015; 89) defines population as the total value, the results of calculations and measurements based qualitatively or quantitatively on certain characteristics of the group of members being studied. And on that basis, the population of this study is all employees who work at the PT. Bank Mandiri Tapen Gorontalo Sub-Branch Office, which may number as many as 32 people.

Samples

The sample is part of the population, which is the object of a study. According to Arikunto (Astianto, 2017), for a population of less than 100, the sample is the entire population, or, in other words, it is commonly called the total sample. In this study, 32 respondents, including 25 permanent employees and 7 non-permanent employees, were considered research samples.
**Data Collection Technique**

The data collection technique is a method used by the author in this study as follows:

1) Observation. It is an activity that involves observing company activities related to the problem under study.

2) Interview. Interviews are the process of taking and gathering information for research purposes. The target interviews conducted in this study were with the leaders and employees at PT. Bank Mandiri Taspen Gorontalo Sub-branch Office Branch.

3) Questionnaire. A list of written questions was distributed to the respondents, in this case, the employees at the PT. Bank Mandiri Taspen Gorontalo Sub-Branch Office.

4) Documentation. Collection of data and information through magazines, books, and scientific sources that have a relationship with the theories and concepts being researched.

**Analytical Method**

To determine the effect of intellectual capital and job satisfaction on employee work productivity, a test is carried out using path analysis. Data on an ordinal scale are first converted to an interval scale with the Successive Interval Method (MSI). Path analysis is used to consider causality and correlative relationship patterns between variables.

The research hypothesis is shown by the arrangement of the relationship between the independent variables and the dependent variable. This path diagram can be seen in the following path structure.

![Path Analysis Structure](image)

- **PYX1**: Intellectual Capital
- **PYX2**: Job Satisfaction
- **Y**: Work Productivity
- **E**: Other variables not examined but affecting Y
- **r**: Correlation between variables X
The collected data is analyzed for causal relationships between variables or dimensions, which are carried out using path analysis, which shows the effect. The picture above also shows that the sub-variables are not only influenced by X1 and X2, but that there is an epsilon variable (ε), which is a variable that is not measured and examined.

IV. RESEARCH RESULTS AND DISCUSSION

Research result

Variable Analysis in Research

In the following, an overview of the tabulation results of the data or variables that are the object of research will be presented. Based on the data sample for each variable, which was determined to be 32 respondents, it can be tabulated as shown in the following table:

1) Intellectual Capital (X1)

Based on the results of the research item data obtained from 32 respondents, item (no.1) score of 135 was classified as high. Data item (no.2) gets a score of 125, which is high. Data item (no.3) gets a score of 129, which is high. Data item (no.4) gets a score of 130, which is high. Data item (no.5) gets a score of 135, which is high. Data item (no.6) gets a score of 125, which is high. Data item (no.7) gets a score of 129, which is high. Data item (no.8) gets a score of 130, which is high. Data item (no.9) gets a score of 132, which is high.

2) Job satisfaction (X2)

Based on the respondents' responses to the variable job satisfaction (X2) data item (no.1) obtained from 32 respondents, an item 1 score of 132 was classified as high. Data item (no.2) gets a score of 137, which is high. Data item (no.3) gets a score of 131, which is high. Data item (no.4) gets a score of 133, which is classified as high. Data item (no.5) gets a score of 132, which is high.

3) Work Productivity (Y)

Based on the respondents' responses to the work productivity variable, it can be seen that, based on table 4.6, the data item (no.1) obtained from 32 respondents received a score of 132, placing it in the high category. Data item (no.2) gets a score of 130 in the high category. Data item (no.3) got a score of 127, high category. Data item (no.4) got a score of 130 in the high category. Data item (no.5) got a score of 130 in the high category.
Validity and Reliability Test Results

Testing this research instrument both in terms of validity and reliability against 32 respondents, it was determined that the results of the research instrument used were valid where the value of \( r \) count > 0.3.

a. Test the validity and reliability of the intellectual capital variables.

**Table 3. Test The Validity And Reliability of the Intellectual Capital Variables (X1)**

<table>
<thead>
<tr>
<th>Variable</th>
<th>No Item</th>
<th>Validity</th>
<th>Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>X1</td>
<td>1</td>
<td>0.448</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>0.521</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>0.581</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>0.639</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>0.448</td>
<td></td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>0.521</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>0.581</td>
<td></td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>0.624</td>
<td></td>
</tr>
<tr>
<td></td>
<td>9</td>
<td>0.529</td>
<td></td>
</tr>
</tbody>
</table>

Source: processed data, 2023

In table 3, which shows all question items for the Intellectual Capital variable (X1), all instruments show valid and reliable results. This decision was taken because the \( r \) count > 0.3 and the alpha coefficient was 0.751 > 0.60. Thus, it means that all question items for this variable are valid and reliable.

b. Test the validity and reliability of job satisfaction.

**Table 4. Test The Validity And Reliability of the Job Satisfaction Variables (X1)**

<table>
<thead>
<tr>
<th>Variable</th>
<th>No Item</th>
<th>Validity</th>
<th>Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>X2</td>
<td>1</td>
<td>0.535</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>0.564</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>0.537</td>
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</tr>
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<td></td>
<td>4</td>
<td>0.329</td>
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</tr>
<tr>
<td></td>
<td>5</td>
<td>0.535</td>
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</tr>
</tbody>
</table>

Source: processed data, 2023

In table 4, which shows all question items for the variable job satisfaction (X2), all instruments show valid and reliable results. This decision was taken because the value of the \( r \) count > 0.3 and the alpha coefficient was 0.737 > 0.60. Thus, it means that all question items for this variable are valid and reliable.
Because the value of r count > 0.3, all items of work productivity variable questions (Y) provide valid and reliable results. The alpha coefficient value is 0.748 > 0.60.

**Statistical Data Analysis**

Testing the hypothesis in this study will use statistical tests with the path analysis method. At PT. Bank Mandiri Taspen Gorontalo Sub-Branch Office, quantitative analysis or independent variables, namely work productivity as the dependent variable, are influenced by intellectual capital and job satisfaction as the independent variables.

Based on the path analysis, it will be known that the independent variables simultaneously and partially have a significant influence on the dependent variable, based on the results of data processing from 32 respondents using statistical tools.

Work productivity that is influenced by intellectual capital and job satisfaction will be explained through the results of statistical analysis. The results of data processing show that the independent variable has a significant impact on the dependent variable. The following equation can be used to create the causal relationship framework for X1 and X2 for Y:

\[
Y = 0.376X1 - 0.332X2 + 0.259
\]

Based on these equations, the research variables can be explained as follows:

1) The value of the intellectual capital variable (X1) is 0.349 and is positive, indicating that the intellectual capital variable (X1) has a positive contribution to work productivity (Y). That is, if intellectual capital increases by one point, then employee job satisfaction (Y) will also increase by 0.349.
2) Job satisfaction (X2) is 0.332 and has a positive sign, indicating that the variable "job satisfaction" (X2) has a positive contribution to job satisfaction (Y). This means that if job satisfaction increases by one unit, then job satisfaction (Y) increases by 0.332.

3) Epsilon (ε) of 0.259 indicates that there are other variables not examined at 25.9%.

4) The correlation coefficient is 0.861 and the coefficient of determination (R Square). of 0.741 indicate that the workload variable consisting of intellectual capital and job satisfaction has a joint effect on work productivity at the PT. Bank Mandiri Taspen Gorontalo Sub-Branch Office. The relationship between variables based on the results of data processing using path analysis can be seen in the following figure.

The relationship between X1 and X2 to Y

The research results are then presented briefly in the form of Table 4.11 as follows:

**Table 6 : Path Coefficient, Direct Effect, and Total Variable All Have a Significant Effect on (X1) and (X2) at the Same Time And on (Y).**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Koefisien Jalur</th>
<th>Contribution</th>
<th>Kontribusi Bersama (R²yx1x2)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Langsung</td>
<td>Total</td>
</tr>
<tr>
<td>X1</td>
<td>0,376</td>
<td>0,376</td>
<td>37,6%</td>
</tr>
<tr>
<td>X2</td>
<td>0,332</td>
<td>0,332</td>
<td>33,2%</td>
</tr>
<tr>
<td>ε</td>
<td>0,259</td>
<td>0,259</td>
<td>25,9%</td>
</tr>
</tbody>
</table>

Source: processed data, 2023

**Hypothesis Test**

**Intellectual Capital and Job Satisfaction Both Have a Significant Impact on Work Productivity**

Based on past calculations, a sig of 0.007 and an alpha (0.05) probability value were found. Because the alpha value is 0.05 > sig 0.001 and the F count is 8.817 > 3.15, the decision is that Ha is accepted, so it is proven that both intellectual capital (X1) and job satisfaction (X2) have a significant effect on work productivity (Y).
Intellectual Capital Partially Affects Work Productivity

The results of the analysis show that Intellectual Capital has a sig value of 0.037, after which it is compared with a probability value of 0.05, it turns out that the probability value is 0.05 greater than the probability value sig, or (0.05 > 0.037), and the calculated t value (2.779 > t value table (1.671), then Ho is rejected, meaning it is significant. So it is proven that intellectual capital (X1) has a significant positive effect on work productivity (Y).

Job Satisfaction Affects Work Productivity in Part

The results of the analysis show that job satisfaction (X2) has a significance value of 0.039, after which it is compared with a probability value of 0.05. It turns out that the probability value of 0.05 is greater than the sig probability value, or (0.05 > 0.039), and the calculated t value (2.222) < t table value (1.671), so Ho is rejected, meaning it is significant. So it is not proven that job satisfaction (X2) has a negative and significant effect on work productivity (Y).

V. DISCUSSION

Intellectual Capital and Job Satisfaction Simultaneously Affect Work Productivity

The results of this study prove that, simultaneously, there is a significant influence between intellectual capital and job satisfaction on work productivity. This provides an explanation for why employees should have intellectual capital so that it will increase employee productivity. Likewise, if employees are supported by high job satisfaction, employee work productivity will be higher. Research on employee work productivity has been carried out by Prasetya et al. (2016) and Helmiatin (2015). Prasetya et al. (2016) found that human capital, information capital, and organizational capital have a significant influence on employee work productivity.

The results of this study have a positive correlation coefficient, which indicates a positive and strong relationship between intellectual capital and employee productivity. This means that the higher the employee's intellectual capital and the higher the job satisfaction, the higher the employee's work productivity. The derivation coefficient R2 and adjusted R square values indicate the contribution of intellectual capital and job satisfaction variables to work productivity. Meanwhile, adjusted R square means that work productivity is determined by
intellectual capital and job satisfaction, while the other 25.9% is caused by other variables outside this model, for example rewards.

**Intellectual Capital Partially Has a Positive and Significant Effect on Job Satisfaction.**

The results of this study prove that intellectual capital has a significant effect on the work productivity of employees of PT Bank Mandiri Taspen, Gorontalo Sub-Branch Office. This shows that the higher the level of intellectual capital possessed by employees, the greater the impact it will have on increasing employee work productivity. The human resource factor (intellectual capital) is very important to increasing employee productivity.

Firmanudin's (2021) empirical research on the Effects of Intellectual Capital on Employee Work Productivity demonstrates that intellectual capital has an effect on employee work productivity. indicates that the higher the intellectual capital possessed by employees, the more it will have a significant impact on increasing employee productivity.

Intellectual Capital or human capital is a company's intangible capital consisting of a combination of information, knowledge, and innovation or human evolution resources that can help improve the company's quality. As a result, whether or not a company can be viewed through the lens of its HR intellectual capital is determined by whether or not there is a shortage of HR; if there is, even a very good system cannot function optimally. A good and qualified system must be balanced with good human resources so that work can be more effective, efficient, and of economic value.

**Job Satisfaction Partially Has a Positive and Significant Effect on Work Productivity.**

The results of the study partially explain that there is a significant and positive influence between job satisfaction and employee work productivity. This explains why a high level of job satisfaction leads to increased employee productivity. This research is supported by previous research by Osiani (2015), in which it was suggested that job satisfaction has a significant effect on work productivity.

Another challenge to realizing work productivity is job satisfaction. Work productivity that is influenced by job satisfaction is something that is felt directly by employees. Employees will feel more at ease and at home doing work in a company if they are satisfied with the work they do. Therefore, by understanding the output produced, it is necessary to know what causes can have an influence on this satisfaction. Companies must make further changes that are expected to provide a good atmosphere to create employee satisfaction at work.
Work productivity that is influenced by job satisfaction can provide better performance, or it can be said that performance results in job satisfaction. Employees who are happy with the work being done will continue to work better; therefore, they can show better performance as well. If employees and organizations have a high level of satisfaction, they will be more effective and productive (Rizalrifada).

Informants stated that the important thing in the organization is to support employees so they can work productively. The need for employee attention in order to support work productivity must be accompanied by pleasure and without coercion in order to create employee job satisfaction. Job satisfaction will definitely differ between individuals. It is difficult to know the indicators or characteristics of each individual's satisfaction. The picture of job satisfaction, on the other hand, can be known. As'ad (A. Sururin et al., 2020), job satisfaction is synonymous with work situations, attitudes, and collaboration between leaders and employees. According to Martoyo (Sururin et al., 2020), job satisfaction is defined as an employee's emotional feelings for the company's remuneration for employee work and the percentage of compensation expected by the employee in question. Remuneration for the work of these employees can be in the form of financial or non-financial rewards. So, in accordance with the theory that has been explained, this research is about the relationship between job satisfaction and work productivity.
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